

For Immediate Release



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All-AUB high impact medical research study **led by Dr. Habib Dakik receives international acclaim**

A three-year, high-impact study led by Dr. Habib Dakik, chief of the division of Cardiology at the American University of Beirut Medical Center (AUBMC), has been published in the highly prestigious Journal of the American College of Cardiology (JACC).

The risk of post-operative cardiovascular complications, with major events such as myocardial infarction, stroke, or death, is a hovering concern for a multitude of patients undergoing surgery every day. The average overall risk of such events varies from 1 up to 5% depending on the clinical profile of the patient and the type of surgery performed. Dr. Habib Dakik and his co-workers from the AUBMC initiated a study to derive a new index that has a strong power for predicting post-operative cardiovascular events and yet simple enough to be quickly and efficiently used by physicians in their daily and busy clinical practice.

The study, published in JACC on June 25, 2019, enrolled more than 3,000 patients undergoing surgery at AUBMC and followed them up for one month after the surgery. The investigators derived a new Cardiovascular Risk Index (CVRI) based on six easily acquired data elements, rated from 0 to 6: Age, anemia, history of heart disease, current symptoms of heart disease, emergency surgery, and vascular surgery. The risk of having a cardiovascular event after surgery increased steadily as the index increased (from 0 % for patients with an index of 0 to 15.7% for those with an index > 3).

The findings were then validated in an external database of more than one million patients who had similar surgeries in the USA. The new index had the same strong power in predicting post-operative cardiovascular events.

Dr. Valentine Fuster, editor-in-chief of the journal and past president of the American Heart Association, stated: “I would say that indeed after the nightmare of previous indices with so

many variables and not easy to understand the interactions between them, we now have a simple, so simple, index.”

“This new and simple index is a step forward in the evaluation of patients undergoing non-cardiac surgery,” said Dr. Dakik. “Its impact on overall clinical care and patient outcomes will be determined in the coming years by ongoing research in this area.”

Dr. Habib Dakik received his BS degree in Chemistry with High Distinction in 1982 and his MD degree in 1990, both from AUB. He then moved to Baylor College of Medicine, Houston, Texas where he pursued training in Internal Medicine, Cardiology, and Interventional Cardiology. His main research interest has been in outcomes research and the role of advanced cardiac imaging techniques in the evaluation of patients with coronary artery disease.

He has received numerous international awards for his research including the Baylor College of Medicine Excellence in Clinical Research Award, the International Conference of Nuclear Cardiology Young Investigator Finalist Award, and the Abdul Hameed Shoman Foundation Award in the Medical Sciences.

Co-authoring the article were Dr. Hani Tamim and his assistant Maha Makki from the biostatistics unit; Dr. Eman Sbeity from the Department of Surgery; Dr. Cynthia Karam and Dr. Mayyas Msheik from the Department of Anesthesiology; research fellows Omar Chehab, Mahmoud Eldirani, Ossama Abou Hassan, Ahmad Msheik, and Chris Kaspar; and medical student Hussein Hassan.

“This represents monumental work and a major breakthrough in preoperative cardiovascular evaluation of patients undergoing non-cardiac surgery,” said AUB President, Dr. Fadlo Khuri.

AUB Trustee Dr. William Zoghbi, Chair of Cardiology at the DeBakey Heart and Vascular Center and past president of the American College of Cardiology (ACC), wrote to Dr. Dakik: “Congratulations on this seminal scientific contribution, published in our most impactful cardiology journal – JACC. I am so proud of you and the team you have assembled to produce this important contribution to the literature and to clinical care.....You make us and AUB so proud.”

ENDS

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Note to Editors

About AUB

Founded in 1866, the American University of Beirut bases its educational philosophy, standards, and practices on the American liberal arts model of higher education. A teaching-centered research university, AUB has more than 900 full-time faculty members and a student body of about 9,100 students. AUB currently offers more than 120 programs leading to bachelor's, master's, MD, and PhD degrees. It provides medical education and training to students from throughout the region at its Medical Center that includes a full-service 420-bed hospital.

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